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UNDERGRADUATE EDUCATION: ISSUES AND DIRECTIONS, SELECTED ADDRESSES FROM THE ANNUAL FALL CONFERENCE OF THE ASSOCIATION FOR HIGHER EDUCATION OF THE WASHINGTON EDUCATION ASSOCIATION (4TH, SEATTLE, DECEMBER 1-2, 1967).

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Three addresses from the Conference are presented in full, with panel reactions to the third. Glenn Leggett of Grinnell College spoke of the need to unite special and general education. More independent study in the sophomore year and interdisciplinary seminars at the senior level would help delay the choice of major, thus providing exposure to several disciplines and a consequent keener discrimination between alternatives. Lewis B. Mayhew of Stanford University felt that, if present conditions and attitudes are not radically changed, undergraduate education will not improve in the next 15 years. He listed current faulty approaches to curriculum development. He also pointed out areas where programs do not accommodate present national and international problems , and outlined the principles on which courses could be reorganized for greater relevancy. Joseph Tussman of Berkeley described in detail a current experimental program, the core of which is a sequence of readings, clustered about certain periods in Western civilization. the readings, in turn, serve as a focus for serious writing and discussion. The coherence of the program is reinforced by lectures, student/faculty conferences as required, and informal activities. It is intended that the freedom thus cultivated will be "the freedom of mastery, not of impulse." Three panel members expressed their objections and agreements, and speculated on the feasibility of the usefulness of the program for other institutions. (HH)

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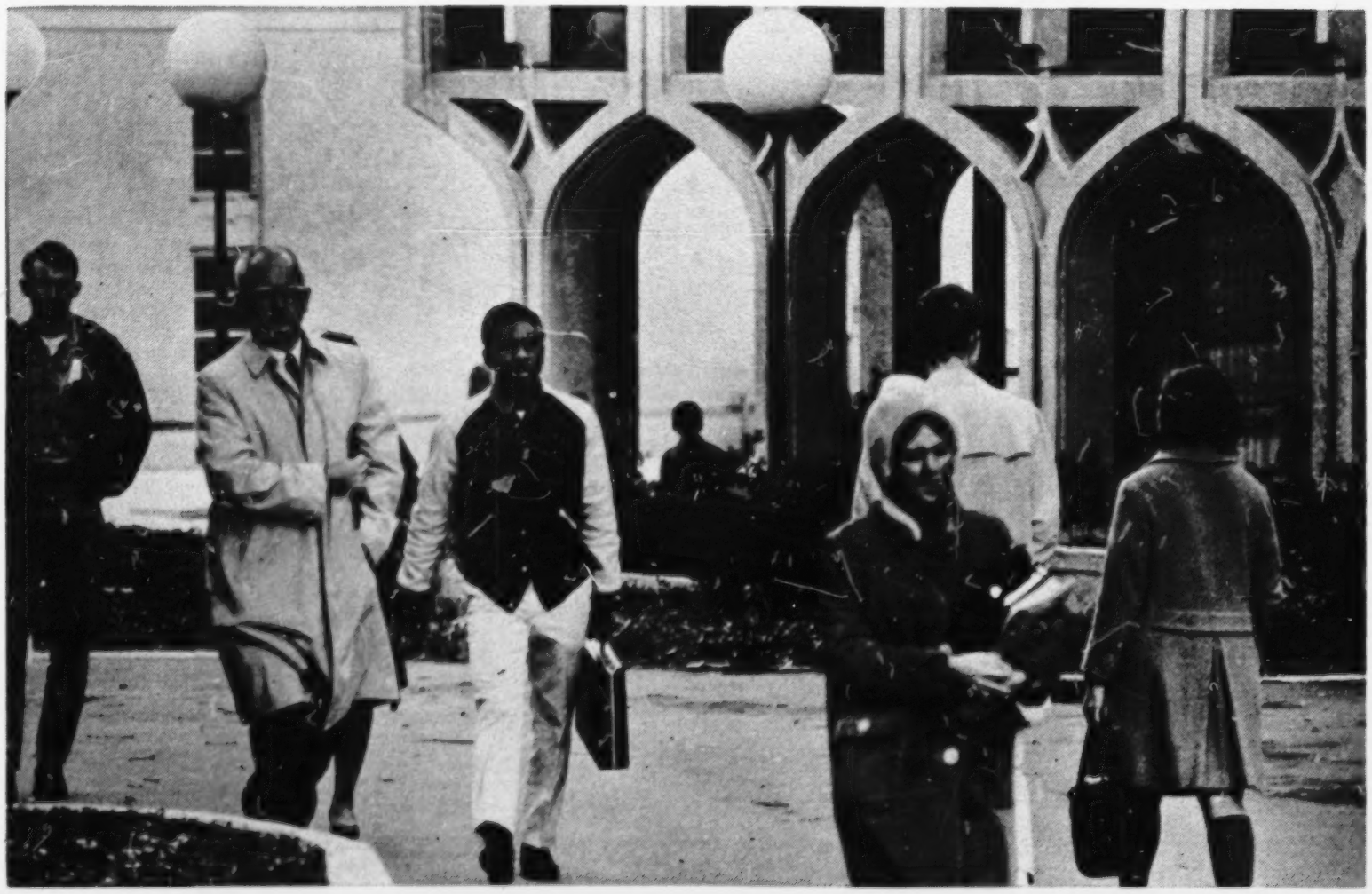
UNDERGRADUATE EDUCATION: ISSUES AND DIRECTIONS



ADDRESSES BY LEWIS MAYHEW, GLENN LEGGETT, JOSEPH TUSSMAN AT THE FOURTH ANNUAL CONFERENCE OF THE ASSOCIATION FOR HIGHER EDUCATION OF THE WASHINGTON EDUCATION ASSOCIATION, DECEMBER 1967

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The Association for Higher Education is the higher education department of the Washington Education Association. AHE membership is composed of faculty and administrative personnel from the colleges, universities and community colleges of the state, including the public and private sectors. A major purpose of AHE is to provide programs that will promote the professional growth and development of the professional personnel in the institutions of higher learning in Washington. The AHE was pleased to organize and sponsor its fourth annual fall conference on the theme of "Undergraduate Education—Issues and Directions."

The Center for the Development of Community College Education was established with the purpose of aiding and developing emerging and established community colleges in the Pacific Northwest.

It acts as a consulting agency in the planning and initiating of programs in administration, instruction and research. In cooperation with other colleges and schools of the University of Washington, it develops programs for the preparation of community college faculty and administrators.

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UNDERGRADUATE EDUCATION—ISSUES AND DIRECTIONS

Selected Addresses from the
Fourth Annual Fall Conference of the Association for Higher Education
of the Washington Education Association
December 1-2, 1967

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FOREWORD

Necessity for change is the one characteristic which all the spokesmen find—and agree upon—concerning the future of higher education. Few agree on the shape the change will take, but most agree that the essence of the change must be in undergraduate education. Therefore, the Association for Higher Education selected as the theme for the fourth annual fall conference "Undergraduate Education—Issues and Directions."

One college president said:

> As I have pondered the perplexities of this college, it has seemed to me that the undergraduate curriculum is the key to solving the entire range of problems. It is the curriculum which costs the most. It is the curriculum which sets the intellectual tone of the campus. It is the curriculum which demands the most from faculty. And it is the curriculum through which the college best can achieve its purposes.

John W. Gardner optimistically declared that "the movement for reform at the college level is already under way" and "it is certain to transform instruction in all major fields of knowledge."

Certainly Daniel Bell's study of Columbia College—*The Reforming of General Education*—and the Report of the Select Committee on Education—*Education at Berkeley*—give some evidence that Gardner is correct. Many colleges and universities are looking again with great care at their undergraduate curriculums. Some, like the former teachers colleges, are expanding their roles. Some, like the community colleges, are testing their abilities to serve competently multiple purposes. And many who cherished the belief that the general education movement was their best hope are reluctantly agreeing with Hugh S. Brown and Lewis B. Mayhew that the movement was "a serious attempt which failed."

Many students are asking "Is the curriculum relevant?" Philip E. Jacob in 1958 found that the curriculum did little to change students' values. The Student Development Study at Berkeley and Stanford found, after four years, that neither professors nor courses were among the major influences on students. Nevitt Sanford has now written a book *Where Colleges Fail* (1967) in which he argues that the failure is not the fault of curricular design but rather the failure to perceive the student as a person. To be relevant, education must deal with both a curricular theory and a theory of personality.

All of these self-examinations are fostering change. Many experiments are now under way. *Higher Education: Some Newer Developments* edited by Samuel Baskin (a study sponsored by the American Association for Higher Education) reports on a few of the experiments, especially in chapters 2, 3, and 8. Joseph Tussman's experiment, which he describes briefly in this booklet, is another attempt to find a new model.

The new models usually begin with a weakness and attempt to provide an "answer." One model clusters around the weakness of standardization in curriculum and the depersonalization of relations between faculty and student. The "answer" is the formation of primary groups of students and faculty who work closely together.

A second model attempts to compensate for the weakness resulting from the breadth requirements instead of the depth requirements at the expense of both. The "answer" is to find unity by destroying the distinctions between general and specialized education, between liberal arts and professional curricula, and between transfer and terminal programs.

A third model attacks the weakness resulting from the unnatural line of demarcation separating the campus from the community, from the "real" world. The "answer" here is involvement with the off-campus community and its problems—economic, social, and political.

A fourth model rebels against the revered lecture method. The "answer" declares that the teacher becomes a learner and the student becomes a teacher while both learn by discovery.

A fifth model searches for excellence as a substitute for counting—counting class hours, courses, credits, grade points. Here the weakness is clearer than the answer. What is meant by "excellence"?

The fact that answers seem elusive doesn't make the cause hopeless. Responses by speakers and participants at the conference revealed a determination to examine and design significant undergraduate programs. All, we believe, would agree with Alfred North Whitehead:

> Culture is activity of thought, and receptiveness to beauty and humane feeling. Scraps of information have nothing to do with it. A merely well-informed man is the most useless bore on God's earth. What we should aim at producing is men who possess both culture and expert knowledge in some direction. . . . We have to remember that the valuable intellectual development is self-development, and that it mostly takes place between the ages of sixteen and thirty.

Dialogue based on genuine concern was the aim of the AHE conference. Many people—the speakers whose messages follow, the planners whose ideas gave the conference direction and shape, the participants who contributed so freely of their time and so magnificently of their talents, and the officers of AHE for their leadership—deserve our appreciation. They are professionals all.

Finally, to the Center for Development of Community College Education at the University of Washington we extend a special expression of appreciation, for without the financial assistance provided we could not have prepared this report by which we hope to fuel a continuing and fruitful discussion about undergraduate education.

JOHN N. TERREY
C. WAYNE HALL

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UNDERGRADUATE EDUCATION: A PRESIDENT'S VIEW

By GLENN LEGGETT, *President, Grinnell College*

The integrity of that many-sided thing called undergraduate education is constantly being threatened. It is threatened by the hard facts of the earlier preparation of its students and by the demands that post-graduate training places on the bachelor-degree curriculum, which gets squeezed from both ends. And so does every other part of the continuum, and why accordingly should there be any special plea for undergraduate training?

Does it not seem reasonably healthy and flourishing? Certainly more students and teachers are involved in it than ever before. Certainly the physical facilities provided for it are constantly expanding. Certainly thousands of educators appear to be hard at work worrying about the proper focus of this curriculum. Indeed, almost all of us, educators and laymen alike, go about trading commendatory phrases about the usefulness of undergraduate training, particularly the utilitarian beauty of its chief handmaiden, liberal arts education. But we educators and our students know that this is little more than whistling in the dark. The undergraduate education we talk about so positively is not the one we have. The discrepancy is not really the consequence of our intentions and our wishes, but the result of the hard circumstances under which we operate.

Let me be more detailed. When I speak of our intentions and imply that we have a fairly unified view of the purposes of undergraduate education, I mean that I am reasonably certain that we would all agree with the following statement by Barnaby Keeney, ex-president of Brown University and now head of the National Humanities Foundation:

> We must work primarily with people to fill the various offices of life as generalists and specialists. We must remember that the desires of our faculties to produce specialists like themselves are not inane, for most generalists have been specialists. We must, on the other hand, remind our faculty that specialists are better

Mr. Leggett is president of Grinnell College in Iowa. Formerly he was associated with the University of Washington as an English professor, assistant to the president, vice-provost, and provost. Active for many years in the National Council of Teachers of English, he was the chairman of the College Section from 1963 to 1965. He has written extensively in the field of English and is the author—with C. David Mead and William Chorvat—of *Prentice-Hall Handbook for Writers* now in its fourth edition.

specialists if they know the relationship of what they do and the circumstances in which they do it to contemporary life; and understand the intimate relevance of the knowledge they have to other knowledge. We must remind ourselves and others that good generalists are people who know what they do not know, and good specialists are people who know what they do know, and that both are essential. The civilized world requires both and it can acquire them only through the shores of education toward which we have been striving but which we have not yet fully attained.

Now this statement sets up the polarity that most of us believe undergraduate education should speak to: that is, the need to unite general and special education—what we sometimes call liberal and pre-professional training—and the desirability of providing undergraduate students with an education that gives them simultaneously training in a specific discipline while it shows them the connection of this discipline with other disciplines, and ends up by making students both practitioners and philosophers, prepared with a solid base of skills either for immediate employment in a useful occupation or for further training in a profession or graduate discipline. In designing curricula to meet these competing demands of breadth and depth, we educators do what we have been doing for the last two generations: we put arts and science together in the same administrative unit, that is, the same college; we divide our sub-units into humanities, social sciences, and natural or physical sciences; we require a little English and a little mathematics of everyone; we try to hang tough on a foreign language requirement; we insist that students "distribute" their courses among the sciences and the humanities; we either place or threaten to place restrictions on the number of credit hours a student can spend in his major; we set up experimental or pilot interdisciplinary courses and seminars; and we talk to ourselves about the need of knowing something about C. P. Snow's two cultures. Our ideal is a graduate, we tell ourselves, who will know a great deal about molecular biology and Shakespeare, will play halfback and edit the school newspaper, and will earn his way through college tutoring the children of faculty in both English grammar and the new math.

Now here is a proper ideal. Indeed, a noble, necessary one. And we should keep an eye on it. But if the curriculum *per se* always needs our attention, we should remember that our brightest strategy ought always to go to the life-giving part of it: Students and faculty and the community they make together in an educational institution.

The explosion of knowledge and its continuing redivision into more and more specialties leave undergraduate curriculum-makers breathless when they try to decide between what courses are necessary and which ones are merely desirable —particularly, when the best teachers sometimes appear to be teaching the least important courses. But it can be resolved mostly by making the curriculum and its requirements flexible enough to permit students themselves to make the choice. There is a good deal of student opinion that I disrespect, but on one matter students are superior academic analysts. They know, after a year or so of experience as undergraduates, that the best teachers teach the best courses, however said courses may be defined in the college catalogue or however the courses may fit into the total scheme of the college. It is true, of course, that left completely to themselves most students will take courses that stress an obvious contemporary relevance. They will persuade themselves that nothing is worthwhile unless it interests them, forgetting that interest follows knowledge much more often than knowledge follows interest. But faculty people know this, and control over the process by which the curriculum functions should remain with them, not with students, which is another way of saying I believe in requirements and prerequisites. At the same time, however, the range of student choice can be expanded easily without giving students the right to be merely self-indulgent. For instance, the credit-fail option in several colleges has been quite successful. In my own institution English majors wishing to take biology but fearful of what a C or D grade will do to their record are discovering under the credit-fail option that the study of genetic structure can add a large dimension to their knowledge. Likewise senior physics majors sit in the senior Shakespeare course or the fine arts seminar.

The wider use of independent study beginning with the sophomore year and some interdisciplinary seminars on the senior level are forcing a delay in the choice of a major until there has been at least a minimum of exposure to the substance and technique of several disciplines. These are ways to drive students into both hard and effective choices on their own, thus realizing indirectly that the basis of freedom is the privilege of having a disciplined discrimination about alternatives.

There are always very special problems for curriculum makers as they look at the senior and the freshman year undergraduate education. Here we get squeezed by the demands of the professional and graduate schools and by the realities of high school preparation.

Let me make two observations here. First, while graduate school deans and university presidents talk splendidly about wanting students with a broad liberal education, we know that their department heads and admissions people look almost exclusively at the credit hours earned in pre-professional courses. How many chemistry courses? In what order? How much English literature, and so on. The result is a good deal of encouragement to that part of the undergraduate faculty which has an all-encompassing belief in its own discipline and a good deal of discouragement to that undergraduate faculty which would like more flexibility in its graduation requirements. Second, it has been my experience that undergraduate faculty are having trouble, though much less so than previously, in adjusting to the fact that high school preparation is much better now than it used to be, and that, accordingly, more than a little of the work required in the freshman year of college is based on some out-of-date prejudices about what high school graduates can handle. I agree that skills in English and mathematics are crucial if undergraduate education is going to be able to proceed effectively. But these skills are always imperfectly realized even in professors themselves. At least until a few years ago, much of the work of the freshman year was a deadening experience for students, sometimes in the subject-matter itself, sometimes in the manner and the general competence of those who taught it. The freshman year ought to be an introduction to the exciting possibilities of knowledge. Though

the inexactnesses and stumblings of freshmen need to be worked on and alleviated, the process ought not to become a bitter end in itself. Too many high school graduates have had more exciting teachers in their high school years than in their college freshman year. It is a source of embarrassment to any college educator who wishes freshmen to begin their undergraduate training with style and with a flourish. High school graduates come to us chiefly able to handle the rhetoric of complex ideas with reasonable skill, and it wastes their time and ours to make them suffer through the pedagogy of bygone days. High school teachers discovered ten years ago that their students could be pushed far beyond the commonly accepted limits of their ability and knowledge. This is a pedagogy that the best college teachers have known for generations, and it's time to let the pedagogy operate in the freshman college year.

Recognizing how much student preparation and aspiration can contribute to refurbishing of undergraduate education calls for the development of a strategy to improve what can be called the "professional life" of the undergraduate teacher. It is customary now to say that the system of rewards for faculty is not conducive to effective undergraduate teaching; that the problem with undergraduate education in the big universities is that we have not yet been able to find a way to make available to undergraduates the splendid resources of teachers, researchers, and equipment that are already on the premises, and that the problem for purely undergraduate institutions is to attract and retain effective teacher-scholars. There is some gloomy truth in these circumstances, but they are not irrevocable.

Consider for example these facts about an undergraduate college: Faculty members at such colleges know they are committing themselves to a kind of educational environment in which a massive dedication to scholarship in a few mature students is impossible. They know, or at least they find out very soon, that they have multiple roles to perform—teaching of introductory courses as well as upper-division courses, rather heavy advising and counseling responsibilities with students, pressure from good students and their colleagues to keep up with their scholarships, involvement in the management of the college, and so forth. Such faculty members are not merely teachers and scholars, but administrators, counselors, curriculum-makers, and liaison men with graduate professional schools. Their dedication is wide-ranging and total. In ideal terms this commitment appears to satisfy the personal needs and professional ambitions of such faculty better than any other.

These multiple responsibilities can become so overwhelming that the things that keep a faculty member professionally alive, that is reading and writing and thinking and talking with his professional colleagues, get pushed steadily into the day after tomorrow's schedule. We can admit that it happens in every educational institution, not simply undergraduate ones. But this is a small comfort, and we ought to do something about it. And we can. Lowering the teaching load, strengthening relations with outside study centers, finding more research monies, improving the sabbatical leave system, bringing in outside lecturers—all these are part of the answer. I do not discount their importance. But I think the solid part of the solution is in building what we might call a faculty incentive plan into the educational program. I think a faculty member who in one year teaches introductory or general education courses, advises underclassmen and serves on important committees ought to be given credit in the following year by a reduced work-load or by being permitted to concentrate on his special interest, either in seminars or independent projects, or by being given some special research funds to start or complete his own professional project.

The system ought to be flexible enough to adapt itself to individual needs and temperaments. There are other variations possible; all of them depend not only on the availability of funds, but more crucially on the willingness of the faculty to consider some fundamental changes in the character of undergraduate education through the restructuring of departmental curricula and the reorganization of the studies serving graduation requirements. In other words, in order to improve their professional lives individual faculty members may have to change their way of doing things educationally, and in the process we can come out with better colleges not only for students but for faculty as well.

An undergraduate is the most wonderful and maddening creature in education; therefore, I think, the most educable. Anna Freud said it better than anyone when she wrote:

> I think that it is normal for an objective person (that is, the undergraduate) to behave for a considerable length of time in an inconsistent manner, to fight his impulses and to accept them; to ward them off successfully and to be over-run by them; to love his parents and to hate them, to be deeply ashamed to acknowledge his mother before others, and unexpectedly, to desire heart-to-heart talks with her; to thrive on imitation of and identification with others while searching unceasingly for his own identity; to be more idealistic, artistic, generous and unselfish than he will ever be again, but also the opposite—self-centered, egotistic, calculating. Such fluctuations between extreme opposites would be deemed highly abnormal at any other time of life, but at this time they may signify no more than that any adult structure of personality takes a long time to emerge; that the ego of the individual in question does not cease to experiment and is in no hurry to close down on the possibilities.

The fluctuations that Miss Freud talks about and the ceaseless searching for possibilities offer great pedagogical opportunities to the makers of an undergraduate curriculum. They should remember not to close down too soon on the splendid possibilities.

THE UNDERGRADUATE CURRICULUM – 1980 or 1984?

By Lewis B. Mayhew, *Professor of Education, Stanford University*

I've been spending this year looking at the probable future of American higher education. The further I looked the more pessimistic I became. I think it is quite true that at the present we can make some reasonably true and accurate guesses as to what the shape of American higher education is going to be in 1980 by extrapolating from what we see happening now.

Let me indicate quite briefly several things which I see with respect to the undergraduate curriculum. First, unless we change radically, the present interest in what I would call the primrose path of graduate education and research is so likely to distort the comprehensive four-year institution, that undergraduate education will probably be receiving less attention than it is even now.

Second, it seems to me that unless people in the community college get over their preoccupation with a kind of precious concern or liking for higher education, they're not likely to give much attention to the undergraduate, either. While I think that junior colleges properly belong in higher education, I would much prefer some post-secondary education. That word "higher" seems to have an invidious connotation. Unless junior colleges make some radical shifts and get over their preoccupation with the transfer program, the students they attract aren't going to get too much attention.

Third, I don't look for the new media, the hardware, to be much more important in undergraduate education in 1980 than they are now. And if you're really honest about what you see taking place in most of the halls of most of your institutions and mine, you'll find that not much attention has really been given to the use of the new media. Frankly, I don't expect much in the future. I would suspect that the pattern of instruction in 1980 is going to be fairly similar to what the pattern was in the 1930's and to what the pattern is in the 1960's.

Mr. Mayhew is ... professor of education at Stanford University and is currently president of the American Association of Higher Education. A prolific writer, Mr. Mayhew has published several books dealing with higher education and regularly reviews books for "College and University Bulletin" (AAHE) and The Chronicle of Higher Education. In 1967 he edited *Higher Education in the Revolutionary Decades*, a collection of essays on the changing scene in higher education.

Beginning French will still feature singing of quaint little songs; students taking history of civilization will take it in a large lecture section supplemented by discussion sections in which the leader will give a canned version of the larger lecture. I really don't see much change taking place.

Clearly there is unrest, clearly there is a study of the purposes and goals of undergraduate education, and clearly there is significant experimentation with new sorts of programs, but no pattern seems to be emerging. In large universities the powers of departmental faculties seem undiminished and are exercised to tailor the undergraduate courses to fit the needs of intense specialization. The departments in smaller schools follow the lead of scholars in major universities. But there is talk of interesting new interdisciplinary courses, frequently influenced by the free university style of course. There is some feeling that specialization, especially in professional fields, ought to await the graduate years. There is somewhere a hint that some kinds of remedial or compensatory education may be required within four-year colleges and universities, if they are to serve an even more heterogeneous student body.

At this point, however, the only responsible prediction must be that there will be less change in undergraduate education than in other sectors. Partly this is so because students and faculty are reasonably happy with what they are doing and getting. This notion may shock many in view of the vast literature about student unrest, but a careful perusal of that literature reveals that students are really not protesting about teaching or the curriculum. It's their private lives and some of the moral dilemmas of the entire society which have them upset.

I want to discuss four major approaches to curricular development. First, I think the most common approach is a "monkey-see, monkey-do" syndrome. When a new dean is appointed to a new college, he's charged with developing a curriculum and of course he sends away for all the catalogues of similar institutions, and builds his own catalogue. This method—emulating programs without respect to indigenous characteristics—is insidious.

Second, there exists what I would call the professorial interest syndrome; that is, let the professor teach what interests him. This practice isn't all bad, because there is a great deal of value, I'm convinced, in having a person interested in something. We build a curriculum by importing an instructor who wrote his doctoral dissertation on a re-evaluation of George B. McClellan. So, he gets into the curriculum a course on George B. McClellan, which in itself isn't bad. But then he moves on and we search the country to find another person who can teach this course.

Third is the graduate preparatory school approach. We include courses in the curriculum because our students, if they're going to succeed in the graduate school, must have had this kind of preparation. The fact that only a relatively small number of single-purpose institutions are really graduate preparatory schools seems to make no difference. The notion is abroad that each undergraduate college must prepare students for going on to graduate school (if it's to fulfill its destiny). The fact that such a large proportion of students—something over a third who do go on to graduate school—go into fields other than that in which they majored as undergraduates is frequently lost sight of.

The fourth approach is what I would call the capital "C" culture syndrome. Every educated person must know 1066 and all that; he must be able to give a signal response when the word Picasso is uttered, and he must, of course, have heard of Picasso's "Guernica." Of course he has read Plato. So we put all of these little cultural niceties together into the curriculum, not because they are particularly relevant but because of the capital "C" notion, "a cultured person ought to have these."

There are several other approaches which are less susceptible to caricature, but have the same level of validity. There is the mathematical model which was first advanced for our consideration by Beardsley Ruml and Donald Morrison, which says that we can really decide *a priori* the number of courses of varying sizes which we need for a given student body. Then, if we adopt this mathematical structure, we can keep the collegiate curriculum fiscally in balance and make it educationally sound. I happen to be quite intrigued with this idea—seeking to develop some sort of abstract mathematical model for our curriculum, and then letting this impose the parameters on faculty curricular thought—which has been elaborated by Earl McGrath and more recently by Paul Dressel. What Morrison, Ruml, McGrath and Dressel are trying to say is: Let's provide some limitation through this mathematical model and then let the creative energies of the faculty function. The result should be a reasonably balanced curriculum.

Then there is the "realms-of-meaning" approach to curriculum developed by Philip Phenix which says that there are certain important domains which are of concern to all, and that a student within the undergraduate curriculum should have some experience in each one.

Also there is the system of curricular development which Ralph Tyler presented to us in the 30's—that of forcing us to try to think about behavioral objectives, and what the appropriate learning experiences to achieve these objectives are. Then the curriculum is the consequence of these decisions.

In addition to being critical of all these approaches, I have also been quite critical of the substance and the application of the undergraduate curriculum for several reasons. First, I've been—and remain—quite critical of courses which lack relevancy. I suspect that all over this country this fall there were professors of psychology standing up before freshmen or sophomores saying, "If you're interested in learning something about yourselves or the problems you face, you've come to the wrong spot, because our work in psychology just isn't concerned with people."

I think much of the criticism which I hear around the country about theological instruction is justifiable. Here I would define theology as an attempt to mediate between perceived reality and the unknowable—the imponderable. Too often we find courses in dogmatic religion, being taught with utter disregard for what students can perceive as reality. I'm indebted to Father Frank Shea at Boston College for this illustration: Somehow to students, hearing the professor of dogmatic theology say and prove that life can never be created artifically when the student knows that on the same campus some of the boys in white are working zealously to do just that and are reasonably sanguine they're going to succeed, theology just hasn't been relevant.

Second, we, with our preoccupation with the numbers game, have required students to take too many different courses at one time. A normal load of fifteen to eighteen credit-hours of five or six courses is a veritable maze. With such a schedule a student will study one subject reasonably zealously, one somewhat zealously, and for the others he will rely on a facile pen or a gift of gab to get by.

Third, I've been critical because of the lack of any psychological or logical structure of progression in the curriculum. While it's true that we do have prerequisites in our college catalogues, I'm persuaded from having observed instructors teaching these courses that (with the exception of a few fields such as some of the difficult sciences, foreign languages, and elements of mathematics) the meaning of prerequisites, as we practice them, is virtually nil. A bright student, particularly in any of the descriptive courses, can jump into a senior course or a freshman course; if he's reasonably bright and does have a facile pen he can very likely get by. The student senses that there ought to be a logical structure, but somehow there isn't.

Fourth, there is a lack of realism about the rationale for offering courses. I don't really dislike foreign languages, but the kinds of foreign language requirements I see are completely unrealistic for accomplishing the goals of helping the student learn something about the structure of his own tongue, enabling him to read and comprehend a foreign tongue, and immersing him in a foreign culture. Foreign language, I'm quite sure, is the kind of subject which requires sustained study and probably approaches some sort of threshhold after which most of the experience is retained. But before this threshhold, forgetting takes place immediately after the learning stops. I suspect that learning a foreign language requires something more than two years before even this threshhold is reached. Yet we put into our catalogues the two-year language requirement. When the pressures from other fields get too intense, we put in the one-year language requirement, which is even worse.

Fifth, since the late 50's, our colleges and universities have become preoccupied with disciplinary courses in the freshman and sophomore years. Nevitt Sanford remarked that the late adolescent really doesn't need to have his attention focused down on these disciplinary courses. Rather, what he needs is an opportunity to expand his impulse life, his affection, his awareness of feeling. If we can satisfy these needs, then there's plenty of time for discipline later on. This is speculation but I have a feeling that some of the protest at the distinguished institutions like the University of California at Berkeley comes from students being exposed to these disciplinary approaches disguised as searches for high academic rigor. What they really want is to have someone give attention to the serious questions they have.

In another context, I have been somewhat critical of what I think are the significant revolutions of our time and how we have failed to accommodate these in our curriculum or in our approaches to teaching. Let me illustrate several examples of the revolutions which I think we must accommodate if our curriculum is going to make sense to our students.

The first, quite clearly, is the expansion of knowledge or the so-called "knowledge explosion." How do we fit into the curriculum plutonium physics and atomic physics? How do we fit into a curriculum already weighted with material from the Western tradition the newly discovered materials from the non-Western tradition? How do we accommodate our supposed need to understand something about the nature of science and the equal imperative to know something about the nature of law, now that law—administrative, statute, trial law and the like—has become so critical in all of our lives? How do we accommodate that one-year foreign language requirement with the equal imperative that all students at least ought to know what the limitations of a computer are? How can we put together a curriculum which has some kind of logic, which has some kind of cohesion, which has some kind of perceivable and defensible parameters, in the face of this constantly developing mass of new material?

Second, I think we must accommodate in our curriculum far better than we have the revolt of the colonial people, whether this be the revolt of colonial peoples outside of this country or within, best illustrated by the Negro civil rights movement. If I were to design a platform for the 70's, it would say that education at all levels, especially higher education, must find ways of educating a group of people previously thought to be uneducable. We've had other such groups in the past, and somehow we have developed curricula and ways of teaching which have worked. Now we have to find a curriculum pattern which will, within a generation, overcome three centuries of cultural deprivation.

Third, although we presently don't do a very good job of it, we have to accommodate the urbanization of society. Whether one likes it or not, the vast majority of us either are now living or will in the future live in a highly complex technological society under urban conditions. The average college student, for example, even now or within the next two or three years, will attend an institution of 20,000 students located in an urban area of 100,000 people or more. Yet we build and operate our colleges as though we were still living in the agrarian past. Consider our notion, our stereotype, of what a college is: It's a small bucolic place, walled in to keep the students in and ideas out. In addition, we try to put this college right in the center of the city, instead of doing as other societies have done by allowing this presumed center of intellectual life to be spread throughout the city. I would recall for you that the University of Paris has been a major intellectual stimulus and that it spreads amoeba-like through a large portion of Paris. Similarly consider our rules and regulations about students, the so-called doctrine of *in loco parentis*. It seems to me this is derivative of a time when college students were fourteen and fifteen years old, and were sent away from home for someone else to take custody of them.

Fourth, we must accommodate the expansion of leisure which is already a fact of life. A year and a half ago a distinguished economist, speaking in all seriousness, said that unless the schools do something about the problem of leisure by the mid-1980's or the 1990's at the latest we'll have to keep the majority of the population under permanent sedation just so they can accommodate themselves to leisure. This, in fact, is happening. I take it that much of our television viewing is a sedative of this sort. The substantial increase in narcotics, I assume, is another way of coping with this leisure. I heard Edmund Gordon say that each generation

has its own survival values. In one generation it's the ability to wrest a livelihood out of the soil; in another, to manipulate some machinery. Gordon's two survival values for the future were: one, to cope with leisure; two, to manage knowledge. Knowledge has grown so great that we as individuals simply can't store it for later automatic response. Instead we must be able to manage knowledge by being able to find it when and if we want it.

The last of these revolutions is the affluent society. It poses problems for the total society when one segment is affluent and the other is painfully aware that it isn't. Our related revolution in communications shows the less affluent just what life might be. In some way the curriculum must deal with this problem of affluence.

Now, in this context let's consider the undergraduate curriculum. Indeed, in some places, the curriculum is being considered in the light of some of these forces. To borrow a phrase from B. Lamar Johnson, there are "islands of innovation" around the country. Let me review some of the innovations which one can find. There is the free-university type of course which has been given wide publicity at San Francisco State, where at one time, it is my understanding, as many as 2,400 students were taking courses contrived by students and designed to answer their questions. If this free-university-style course gives undergraduates a chance to raise in somewhat disciplined form the critical questions which they have and the problems which they perceive and the opportunity to work with professional adults toward achieving some insight, it seems to me to be an exciting curricular development.

There is a good bit of interest in the overseas or "other-culture" shock approach to education. Somehow we need to get young people out of the kind of existence in which they've been reared in order to let them see what other people are like and to let them experience the conflict of their values and the values of others. I happen to be a little critical of some of the attempts to do this through the sending of students from a quite comfortable middle-class American environment to a quite comfortable middle-class American environment located overseas. I would argue that there are many ways by which a student can experience cultural shock without ever leaving town. One psychiatrist friend of mine who is teaching at the New School for Social Research in New York came up with an interesting device in one course. The only requirement for the course was that each student must penetrate a subculture foreign to his own. There are a number of these experiments which provides cultural enrichment to descriptive courses on urban affairs of the Negro and his contribution to American life.

There are some interesting experiments underway to develop interdisciplinary courses. These experiments are derivatives of the old general education program, but, in part, these new courses are derived from the interstices between fields where research is going on. We see fields coming together when engineering can't answer the question, and when biology can't answer the question, we create bio-engineering. At the undergraduate level we see interdisciplinary work as one of the more frequently adopted reforms.

An increasing number of institutions are trying the co-operative work-study program or some other form of interrupting education. Increasingly I think it's true there are major discontinuities in the lives of college students. In several institutions, for example, some 30 per cent of a beginning freshman class graduate at the end of four years. Yet when we take a look at those freshman classes ten years later, we find that 65 to 67 per cent have finally graduated, and that these people who come back seem to get more out of their collegiate experiences. Those of us who taught veterans found that the veterans seemed to get more out of what they were doing than did the youngsters who were fresh out of school. I think one could probably make a pretty good argument that we're beginning to institutionalize these discontinuities.

One of the logics for the separation of types of institutions within a state system—two-year college, state college, university—is to institutionalize discontinuity so that the students go here a certain portion of their career, someplace else for another portion. Or we do it through cooperative work where students come to school, as they do at Antioch, or Northeastern, or Cincinnati, for a year, then go off to jobs, hopefully in some way related to their academic work, and then return to the campus. The so-called intersession, the 3-1-3 way of organizing the academic calendar, is a device to facilitate this interruption of formal academic work with some other kind of activity, which hopefully has some education implication.

The independent study, tutorial or individual research approach, and related reforms, are being utilized because of the belief that somehow students can, after all, learn something on their own, that even a freshman student can be charged with engaging in researching something of concern to him, and that he can do this with very little guidance on the part of a professor. A number of institutions using a 4-1-4 have tried to do this in the inter-session period so that the student takes courses in the fall, courses in the spring, and works on his own in the middle term. Such a scheme requires great forebearance on the part of professors, because they realize that whenever students are freed this way, some students are going to goof off. It means accepting some of this goofing off as normal. I've made the same point with administrators, who are fearful of allowing faculty to cut down their formal classroom work, their face-to-face confrontation so that no faculty member would ever spend more than an hour and a half a week in any one course in a formal classroom. The administrators say, "Yeah, but when we do that we're going to improve the golf games of the professors or have some awfully well-cultivated gardens."

There are a number of innovations: computer-based instruction, improvements in the use of television, and variations in the temporal pattern (the trimester system, for example). One could find a number of these being used and could build up a pretty good rationale for them, but I would argue that all of these are simply palliatives. What really is called for is a much more comprehensive or rational approach to the building or the implementation of curriculum. Now it's obvious that such a comprehensive or rational approach will use much that's old. Hopefully, it will use considerable that is new.

I'm going to presume to suggest several principles which I think ought to govern us as we ponder the problems of

building and implementing a curriculum. First, the principle of parsimony—parsimony with respect to the statement of objectives and parsimony with respect to the technique we employ. I have a notion that we build college catalogues and then we build college curriculum from a different base, and I think we create documents which are basically fraudulent. We claim too much. There is the classic case which occurred about two years ago in which a Columbia College student sued Columbia University because he didn't get his money's worth. The Columbia College bulletin said that it would develop wisdom and the young man opined that he wasn't very wise. I would like to suggest that we ask ourselves the following questions: What is the least we can claim that our institution does through its curriculum to justify the expenditures? What are the simplest claims we can make and still not feel guilty about going to the legislature? The same could be asked with respect to technique. What is the least that we can do in order to achieve these objectives which we expostulated as being of value?

Two, the principle of relevance—relevance with respect to idiom, relevance with respect to substance. The paperback revolution has made an important difference in the form through which college education is conducted. It's made possible the assigning to pre-freshmen of summer reading lists of ten or fifteen volumes; it's made possible the requesting by instructors that each student purchase a large number of paperbacks. Students buy them, but I am persuaded that most students don't read them, partly because so many of the books selected are selected with a view to their classic or classic-type idiom.

I would submit that much of what we have assigned the students, which they don't use, could be classified as classic, revered by everyone, read by none. And I've already remarked about the matter of substance. Substance has something to do with the kind of life that the student sees around him.

Three, the principle of honesty. I was very much pleased in October to hear McGeorge Bundy lecture the presidents at the American Council on Education meeting by pointing out, first of all, that because of forces sometimes outside the academy, the academy was gradually having to be more honest than it has been in the past. One illustration is the AAUP score card on faculty salaries. Because of some of the demands of long-range planning agencies, institutions have finally been forced to be a little more honest with respect to their budgets. This business of becoming more honest about the cost of education, about the prices we pay for things, about the needs of education, ultimately will help rather than hinder us. I'm suggesting also that with respect to what is claimed and with respect to what is done, being more honest about the curriculum and the outcomes of the curriculum will help rather than hinder us. I don't think institutions have really been hurt because a book like the Cass and Birnbaum one on American colleges describes some college profiles, or because the College Entrance Examination Board finally put out SAT scores by institutions, forcing institutions to be honest so that some had to recognize that they didn't really get 100 per cent high school graduates having straight A's.

Four, the principle of realism. Could a rational person really believe that lecturing about the history of the South for a full semester will develop in students the facility for handling historic materials and making historical generalizations? If we could be realistic about what it is we are attempting to do in our courses, would a reasonable person say we had a possible chance of success?

Five, the principle of evaluation. Is there any creditable evidence that the program or activity does what it says it does?

Six, the principle of economy of operation. Our institutions are educational institutions, and this is somewhat different from the marketplace. Yet I am beginning to wonder if this aphorism might not be true: If something is good education, it's likely to be good business within the limitations of an educational institution. And if something is bad business, it's quite likely to be bad education.

Seven, the principle of monitoring. I believe that we all must have some systematic means by which we are judged in what we are doing by somebody else. Jane Jacobs remarks in her *Life and Death of Our Largest Cities* that the safest places are where lots of eyes are—these are the places that have low incidence of crime. It's the quiet places, she says, like the walls outside Barnard College, that are the dangerous places in New York City because there aren't eyes watching people as they move back and forth. I have the notion that we in education need to have our activities exposed to many different eyes to keep us honest. I think we need to have what we're doing reviewed by someone in some way. There are many techniques available to us, but I'm convinced some kind of monitoring is important. I'll end these remarks where I began: The future of American higher education at least into 1980 is rapidly taking form; the future is fairly predictable unless we want to do something to alter it. I'm persuaded there are some things that we should try to keep, but I also have tried to make it crystal-clear there are some things which I believe should be changed. I think we still have the opportunity to make changes if we want to. I hope that I have given you some suggestions for bringing about these needed changes.

UNDERGRADUATE EXPERIMENT AT BERKELEY

By JOSEPH TUSSMAN, *Professor of Philosophy, University of California at Berkeley*

The only conviction I have now about educational reform is that it's necessary either to do something very drastic or not to bother at all. What I regret very much as I see what's being done or talked about in a good deal of educational planning these days is the amount of energy that's going into marginal changes; it seems to me the educational institution is such a difficult one to change. The results of the efforts which are directed at small changes within the framework of the general institutions as it is now are so unrewarding.

I'd like to indicate first why the lower division of the first two years is especially a scene that requires divergent reforms, and then to indicate what the nature of the experiment at Berkeley is.

The significant thing about the lower division is that we say that this is the place in college where the department or the discipline has not yet been able to assert its dominating claim to the student's attention. The difficulty is that we don't know what to do with him. The only principle we have is a negative one, that he doesn't belong in any department. So in desperation we let him shop around to see what department he wants to marry or get engaged to. By some general guilt we make a list of all the intellectual virtues and prescribe a sampling of these: enough math, enough science, learning how to think, talk, read and write as well as doing whatever is necesary so the professor who meets the student as a junior doesn't have any problems. There's nobody in the normal structure of academic life seriously concerned with the problems of the organization of the first two years.

Part of the work of the institution is to fend off the intrusion of departments into the first two years, and on the whole we've been increasingly unsuccessful. This means that the educational problem of the first two years is really more serious than the problems of the other two stages of college and university life.

The departure for college is one of the great traumatic moves in the student's life. At this time the student is

Mr. Tussman is a professor of philosophy at the University of California, Berkeley. In recent years he has developed a concern for individualizing instruction on a huge campus. His experiment at Berkeley is a bold interdisciplinary venture; it abandons the notion of "course" altogether and sets up a four-semester interdisciplinary program taught by a mathematician, a poet, a lawyer, a political scientist, and a philosopher. He has written a description of the program: "An Experimental Program in Individualizing Instruction at the University of California, Berkeley," *University of South Florida Educational Review* (Spring, 1966)

flexible, troubled, away from home for the first time, generally expecting something to happen, and with some expectation that college at least will be different. Normally what happens is that he comes to college and finds that it's high school—only much larger, more pressured, more competitive, a little more scenic but no more intellectually exciting—and he finds that he's doing essentially what he's been doing all his life. All his life he's been going to school, taking courses in subjects. In college he's going to take some more courses in subjects; they are usually the deadly battery of English, literature, a language, some science, some of this, some of that. With all this, by the end of the first year, he's given up and has decided to seek enlightenment elsewhere. He has learned to grapple with the routine of remaining in the university, playing the game, answering questions on exams, and has given up on intellectual life in general. If successful, he becomes what we all shudder at—the American alumnus. It's our fault, but we don't quite know what to do.

The soft spot in the educational picture at the college and university level is the first two years; it's where something can be done; it's also where something *needs* to be done. The student is not forced to commit himself to a trade at that point, and the organization of the university in the first two years is not in the complete control of the departments.

The question is: *what* can be done? Here one has to face the fact that the most conservative element in university life is the faculty; the second most conservative, the students. The only radical group is generally the administration. However, that group is almost powerless when it comes to altering the educational program, because the administrator has never yet figured out successfully ways in which to tell the professor how to teach. And faculties are very tough to move. The problem in many ways is insuperable and I'm not sure we can blast out of it.

What ought we to do if we could do it?

The suggestion I'm playing around with now at Berkeley grows out of the enterprises of the experimental colony in Wisconsin in the 20's created by Alexander Meiklejohn. The simple medicine is this: the only way to do something about education is to break the connection between getting an education and taking courses and subjects. The notion of a course in a subject is a highly artificial one, and, in my judgment, the only educational problem is to learn how to abolish courses in subjects. There are good courses and there are bad courses; even good courses don't amount to anything. Normally, the student is fortunate if he receives five good courses in his college life; in addition, he remembers some quaint professor. There is something terribly minimal about it; I suggest we take a fresh look at the organization of intellectual life.

We have a limited amount of educational resources: books, laboratories, and primarily the skill, experience and energy of a faculty. The simple problem is applying in the proper way the available educational energy at strategic points so that learning goes on fruitfully. The problem tackled in those terms will lead us increasingly away from conceiving education as something built up out of units (courses in subjects given by professors).

If we have abandoned the idea of taking courses in subjects, the interesting problem then is: How can we organize intellectual life? It's not too difficult. We have to substitute the real notion of problem for the academic or professional notion of subjects, courses, and classes. That means that our feeble gestures in the direction of what we call interdisciplinary work will not solve the problem. The program that I'm suggesting I often characterize as subdisciplinary, not interdisciplinary; that is, it pays no attention to the normal academic disciplines at all.

Now to describe our program. We're now in our third year. It's a two-year program, and we take the students virtually full-time. They come to us as freshmen and we take them for two years and turn them loose as juniors. We claim all of their time; we do allow them to take one course each quarter in the regular university and that usually allows them to satisfy the language requirement or the university's general science requirement. We put them through a program which is, I must say, a completely faculty-determined curriculum. For any week of the two years I know what these students will be reading, and what they will be writing, and what they will be thinking about—and I can almost tell what they will be saying. The principle that this be a completely required program is essential.

One group has completed two years and are now juniors; we've now begun a second cycle.

The students were selected in the following way: we sent a rather grim and forbidding letter to all of the students who had been admitted as freshmen to Berkeley, asking them to apply to the program if they were interested. We didn't tell them very much, and we made it sound very hard. We knew we wanted 150 students, because we were operating with only six full-time faculty members. About 300 students applied; in many cases the applications were from students who hadn't the faintest idea of why they were signing their names to something. We took the 300 names, put them in a hat, pulled 150 out at random, making no attempt to select on any other basis. We did make sure that half were male and half female. Because of student misunderstanding, the faculty at the beginning of this quarter wrote a very short statement which explained to the students what the program is. This statement has never been published, because we've been operating under protective silence. There's always a political problem involved initiating and sustaining these experimental programs. Every time I write a sentence I lose ten votes. Here is how we described the program:

The program is an attempt to provide a coherent scheme of liberal education for the first two undergraduate years, a time during which the student is not yet pursuing a major. The structure of the program is quite unlike the traditional one, but it has a structure of its own which covers the educational life of its faculty and its students. It is not organized in terms of courses or academic subjects; it is instead based on a common required curriculum, a program of reading, writing, and studying.

The core of the program is a sequence of reading. The reading not only poses a number of persistent problems, but serves as a focus for writing and discussion. In general the readings themselves cluster about some periods in Western civilization during which a major crisis provoked a broad

range of thoughtful and brilliant response. During the first year the focus is on Greece during the Peloponnesian War and on 17th century England; the second year focuses on America. The reading list is deceptively short, but we believe in reading a few great works in depth, rather than reading a great many things in haste. The reading experience in the program is quite unlike what one has generally encountered in his earlier education. If, for example, we read the *Iliad* for a two-week period, this is almost the equivalent in time of an entire quarter course. But the work is concentrated and undistracted, so generally we are reading only one thing at a time. Thus, one can read the *Iliad* in a preliminary way in several days but that reading only scratches the surface, and we must learn how to get beyond that with the aid of discussion, writing, rereading and rereading. Generally, we do not require or even advise the reading of secondary works for commentary, although students may, of course, do so if they have time. While two weeks may at the outset seem to be a long time to spend on the *Iliad*, the time will, at the end, seem awfully short. If we are working properly, we will lay aside every book with regret.

Writing. We approach writing with the conviction that the student can hardly do too much of it. The program policy is that the student should write every day for the entire two-year period. The theory is not that we are out to produce writers, but that writing as individual exercise calls on us to develop clarity, coherence and other powers of analysis and expression, and contributes to our capacity to read perceptively and to engage in fruitful discussion. The writing program will normally be coordinated with the reading and will involve (1) formal papers—about five each quarter, on topics and in a form to be assigned by the faculty; (2) a log or journal in which each student is to write every day. This should be a page or two which develops some idea raised by the reading or in a seminar or lectures. The log is to be available for faculty scrutiny on appropriate occasions.

Discussions. Students in seminar groups of eight will meet twice each week, once with a faculty member present, and once without. The discussion is to be focused on the questions or problems raised by the reading. Discussion is a difficult art with a complex moral and intellectual structure: it involves listening and responding as well as speaking; it calls for judgment about significance and relevance; and it requires adequate preparation. The seminars can be a stimulating and exciting aspect of the program.

Lectures. Twice a week, Tuesdays and Thursdays from 10 to 12, the student body and the faculty assemble for something like a general lecture-discussion session. Sometimes a faculty member may deliver a lecture or speak for a half hour or more. On other occasions a number of faculty members may have a panel discussion. There will usually be questions from students and responses. Sometimes we will have a guest lecturer. Again, the lectures will be related to the reading. The purpose is not to give background information or to explain the reading, but rather to deepen the issues, to offer suggestive interpretations and generally to spark consideration of fundamental problems.

Conferences. Each student will have a different faculty member as his seminar leader or instructor each quarter. The instructor will read and comment on the papers and may from time to time hold individual conferences. These conferences may occur either on the initiative of the instructor or of the student, as needed, rather than on a regularly scheduled basis.

Informal Activity—The House. The House, which has been assigned to the program for its exclusive use, is the physical center for most of our activities. Faculty offices are located there and seminars are held there. But in addition it is available for a wide range of informal use by members of the program. Coffee is available at all hours, the lounge is pleasant and convenient for conversation, and a fine reading room is available. It is hoped that The House will be used by the students for a variety of appropriate informal activities, morning, afternoon and evening. Anyone who wants a key can have one, so he can use it at any and all hours. It should be noted that the general resources of the university are available for students in the program—libraries, gymnasiums, sports facilities, lectures, concerts—and it is expected that our students will live a fairly normal, active life.

The Subject. Since we do not organize our work in terms of such familiar fields as economics, sociology, political science, history or literature, it is difficult to give a simple answer to the question, "What are you studying?" Nor is it quite accurate to say that the program is interdisciplinary. We are concerned with certain fundamental human problems, although it would seem pretentious to say that we are studying the problems of freedom, order, justice, authority, conscience, war, rebellion and tyranny.

But these, among others, are problems with which the Greeks struggled; they are problems which dominated the mind and spirit of 17th century England; they constitute, in some mysterious sense, the American agenda. They are the problems we grapple with as we try to create a significant life at this time and this place. This, as we see it, is the subject of liberal education.

Of course, formal assignments or activities, crucial as they are, constitute only a minimal aspect of education. They are the necessary ceremony or ritual which aids in the development of the appropriate habital cast of mind. They are to be taken religiously, that is seriously, but for anyone in search of education they do not define the limits of his work. The student is the ultimate steward of his own energies. The institution can guide, encourage, advise and sustain, but it cannot simply give him his education. The program frees the student from any of the prods and checks to which he has become accustomed. There are no examinations, and no pass-and-no-pass system. (You remove much of the competitive pressure. A small number of formal classes gives him a great deal of unscheduled time. He will have to learn to use this time and energy fruitfully in an environment full of excitement, enticement and distraction.) To enroll in the program is to assume certain commitments; it is to become one of a group seeking to create a learning community, to engage in a common intellectual life. Education is not entirely a private matter. It is a social enterprise and it has its obligations. Thus, for example, every student is expected and required to attend every formally scheduled meeting, lecture or seminar, to do the reading thoroughly and carefully, to turn in promptly papers which represent his best efforts. The freedom which we cultivate is the freedom of mastery, not of impulse.

That was the description of the program which we gave out to the students and which, I think, fairly clearly states what our operational procedure is. Let me say that for the faculty teaching in this program is a full-time occupation. No member of the faculty has any other obligation to the university, and it's almost impossible to engage in research or writing.

The program is not without its difficulties. If I could be sure of getting faculty members who are regular members of the Berkeley faculty willing to teach in the program with the conception that they could be in it for a year or two and then could go back to their departments, there would be no difficulty at all. Faculty members are very busy, and they are very reluctant to engage in this kind of teaching. They don't want to be diverted from their specialities.

The usual curricular structure on campus enables the professor to explain things that he knows to people who want to know, or pretend they want to know them. Every class is a little box in which some expert is "expertising" and the student is supposed to wander in, get buffeted by experts for four years, and emerge a shining example of "something." Each professor therefore has a vested interest in his course because, in a sense he's a businessman who owns his course. This sense of ownership makes it difficult for anyone to interfere with the way the professor handles his course. Can the university take it over, socialize it, abolish it? The faculty, as it governs itself, tends to be a very powerful collection of vested interests. On the positive side, I suppose, a course represents a commitment of a faculty member to some specialized area. Such a course is harmless at the graduate level and relatively harmless at the upper-division level; but it's disastrous at the lower-division level.

It is becoming increasingly apparent that it will be necessary to take the lower division out from under the control of departments and to conceive of it as something other than courses in subjects. Here we are dealing with students who up till now have not learned to enjoy the use of their minds, who don't know how to read with enjoyment, who don't know how to look forward to the opportunity to sit down and write something which expresses their views, and who don't know how to engage in a rational discussion. Since students don't know how to do these things, they don't understand the joy of the life of an active mind. The task is to recapture in two years the excitement of the use of the mind. This entails abolishing the whole deadly paraphernalia of classes, examinations, courses, grades, and homework. It can be done. It's not expensive. All it takes is an institution which is flexible enough to say, "Take these students. Give them back to us as juniors and we'll pretend they're juniors."

In the meantime we create a situation where the students can learn to read again—that mostly means reading slowly; that mostly means having one thing to read at a time. Hardly anybody has the experience these students have. We begin with Homer. The *Iliad* is wonderful to read now; it's all about Vietnam and many other current concerns. Or it is an exciting experience for a student to be able to take a three-week period in his life with no intellectual task except to bury himself in Pericles' story of how the Greeks destroyed themselves by allowing the escalation of synthetic quarrels to move them to the destructive Peloponnesian War.

With these readings, the question of relevance disappears. It's quite clear that Sophocles and Aeschylus and Euripides are dealing with the problems that are occurring every day on the plaza in Berkeley. If you're dealing with good material it's always going to be concerned with the fundamental problems of freedom, authority, war and peace, reason and the passions. One doesn't have to pander to the contemporary tastes of students; if great reading is selected coherently on these themes, the problem is solved.

We regard our program as working successfully when students say for the first time that they're making a connection between what the university is asking of them and what seems to them important. Then all we have to do is teach them to relax, to read something and to enjoy it. To enjoy it—by slowing down, allowing plenty of time for some reasonable discussions, and providing very little lecturing so that they have a chance for informal discussions.

It's very hard to measure what has happened. We started with 150 students. Of the first group 90 completed the program. We had a lower drop-out rate than did the university generally which loses 40 per cent of its students during the first two years. Many of the students who dropped out of our program didn't drop out of academic life; they went back into the regular program. A student who wanted to drop out would say, "Look, I like the program, but I'm not working very hard. I can't work hard. I'm disgusted with myself." And then we would say, "Well, relax. I don't work hard either." But often the student would be sufficiently disturbed to say, "I'd better go back to where somebody's going to stand over me, where I can play the old game, where I know the ropes and don't have to worry." So most of the students who dropped out of the program are the ones who dropped out because they could see no gain to it since we would pass them all. With the pass, no-pass system, the temptation is to resort immediately to the threat, "If you don't do the work we won't pass you." Our policy has been, "No, we'll pass you. Forget about your grades; you're all going to pass." If that's the case, then sooner or later it dawns on them that either they're doing what makes sense, or they're not. If they're not they get disturbed, and wonder, "What's wrong with me?"

The other feature of the program is that it's a completely required program. The first time around we had terrible fights about it, because students on doctrinaire philosophic grounds thought that they ought to govern their own lives, and that meant prescribing their own reading, doing what they wanted, and pursuing what they were interested in. We took a flat, dogmatic view. The answer was "No. If you want to do what you want, go across the street where they have the cafeteria; you sign up for the courses you want. That's the way of life you can have without us. If you want to be in the program, we determine what the program is. We know what you ought to be interested in, whether you are or not. Moreover, when you read the course material you will discover that you are interested in it, because any healthy student will become interested in what's important." The trouble is he doesn't know what he's interested in; he stabs around in this direction or that. It seems to me that our experience has shown that we need to be tough on this point, that the only asset that the university has is the experience and wisdom of the faculty. For 50 years after university, the student is going to be his own

dean of instruction. What's the rush? Nobody's going to give him courses after college. Therefore he should take advantage of the judgment of the faculty, that here is a coherent scheme of intellectual life which makes sense.

Having had that point made clear, the students are perfectly content because they know already that they have had great experiences reading things that it would never have occurred to them to prescribe for themselves. They're willing now to accept our judgment about what is worth reading. This is a coherent scheme of reading; this is what we will all read. The students do what makes sense, and if the material is well chosen they will respond. Is the material well chosen? We think it is.

Teaching in this program is very hard work for the faculty, but very rewarding. The faculty members work together in a way they have never worked before. There are no lectures which are given privately. No professor takes a group of students and huddles in a corner with them. All of the students belong to all of us. We work out the curriculum together. We lecture only in each other's presence, and we engage openly in controversy with each other. It's very exciting for the faculty. It's almost like a year off to take a great seminar. It is very refreshing, even from the point of view of one's own discipline. It takes a lot of time; it provides a new look at the student. The faculty members get to know students in an entirely different way. And it's very good for the students. On the whole, the students are prepared for any major in the junior year, except a few in the sciences which require a very heavy commitment in lower-division time. We regret this very much and think it's necessary, as far as the institution can, to roll back the claims that the major programs are able to make on the first two years. I think one of the big problems in protecting the lower division is to keep the target out as much as possible. In exchange for their hands-off policy in the first two years, I think it makes sense to give them an even greater claim on the student's time during the second two years.

I'm confident that the administrative people in the university are more aware of the inadequacies of the education as it's now structured than anybody else. They will generally be cooperative. The problem is, how to bludgeon the faculty into allowing other faculty members to do more experimenting with new programs.

Mr. Douglas, Mr. Phillips, Father Fitterer

REACTIONS *(Following Professor Tussman's address, members of a panel reacted. Frederic T. Giles, dean of the College of Education, University of Washington, was the panel moderator. Members were the Very Reverend John A. Fitterer, S.J., president of Seattle University; William L. Phillips, associate dean, College of Arts and Sciences, University of Washington, and George Douglas, executive vice-president, Shoreline Community College.)*

FATHER FITTERER: It is good to talk about curriculum. I would say that as Dr. Tussman has talked about graduate education there is no problem. With upper-division undergraduate education he sees no problems; here I would have to disagree. I think we do have to look at the upper-division courses, which more and more are being dominated by the graduate schools. Yet we have an increasing number of students who are not thinking specifically about graduate school as the Selective Service weans away our male students before they can get too serious about graduate schools.

As for the core of the matter, the lower-division courses, Dr. Tussman, I'll have to confess that I was a little disappointed. I thought we were going to talk about what we can do regarding the dry mess of the lower-division courses for the thousands of young people in our two-year community colleges, in our four-year liberal arts colleges, and in our mammoth and not-so-mammoth university system.

While I am sure the experiment at Berkeley is a noble and a wonderful thing for the young people involved in it, I am disappointed that it is operating on such a restricted basis. Again, we're talking about an honors program, whether we're talking about it for 150 students or we're talking about it for 500 students. I would guess that there are approximately 2,500 freshmen at the University of California, Berkeley campus. Then we talk about a questionnaire going out to all these students. A total of 300 replies; 150 are chosen to enter the program. Then there is some attrition even after the students get into the program. I would have to disagree with the assumption that the way to improve lower-division education is through some sort of honors program. I think this is one way in which lower-division freshman and sophomore course offerings can be improved, but I don't think it's the only way.

I disagree, Dr. Tussman, that faculty are immovable. It's high time that we presidents and deans start exercising some academic leadership in gathering our faculty instead of being moved by them, and seeing if we cannot get their support for improving the freshman and sophomore course offerings. Abolishing courses in subject-matter areas will not solve the problem. The opportunity of being with an outstanding professor, even in a large lecture hall, is an experience which students should have.

One of the basic problems that our institution and others have faced in structuring changes at the lower-division level has been how to train in the freshman and sophomore years the young man who wants to become a major in physics, chemistry, mathematics, or engineering. While it's wonderful to read the *Upanishads*, the *Iliad*, Pericles, and the great literature, and it's equally wonderful to discuss the social problems, young men entering specialized fields need specialized courses. They have to start in that freshman year, and as I understand Dr. Tussman's explanation, the experimental college at Berkeley is a full-time operation for these young people. I didn't hear him mention one science course, or one science program. I would ask him to comment on this.

I would say that Dr. Tussman should be congratulated. Here's a man with a vision. We have many such people on all our campuses. We should allow our faculty a certain amount of experimentation. But the problem I see is that one man has a vision; how does he convince other faculty members in the marketplace that this vision is the only one or that he has the true vision? And at the end of this, if I go and join his club, how does he convince me that we are going to revolutionize American higher education? I do think that, particularly at the community college level, we have to think very seriously about those young people who are going to be going on to four-year institutions and what we can do to improve and make exciting the freshman and sophomore curriculum.

DR. TUSSMAN: I don't think of our experiment as an honors program. In fact, although we're trying it at Berkeley, because that's where I am, I think it's ideally designed for a two-year community college. One of the members of my staff is a teacher from a nearby community college. He is determined to go back and try the program there. It can be done successfully. I would like to try it with students who are not good enough to get into universities which take only the top ten per cent of the high school graduates. I think something like this is even more urgently needed for students who are not honor students because I'm convinced that what we do for them is utter junk. To give these students introductions to this, that, and the other is a complete waste of time. But I believe they would respond to our experimental program.

With respect to lower-division courses, I think we're improving and improving but I don't think much improvement is possible. We spend a lot of time and energy improving the courses and nothing much happens. Courses are always being improved, and then they always deteriorate. The fundamental question is, can the intellectual life be organized into courses? My reply is "No."

Now, how can we expand our program? Admittedly, we've got 150 students and we've got six faculty members; the ratio is not a prohibitive one. If I were saying, here's a program which requires a 10-to-1 ratio, then who could afford that? This is not a demand for greater resources. It's a demand for a different organization in the application of those resources. We start small because we have to show that it works, and then it's a question of convincing more people to do it.

As for the sciences, I think we have to agree that people now live longer than they used to. There's a great myth about how the student needs to get started on science early. We have to tell the people who want to get students to start learning the sciences early that it can't be done. These students are going to have to live in the world, and they'll have to study something else. If they think they want to be scientists at the age of 17, there's something wrong with them. If they can't stand two years of exposure to other things, they don't have a very deep conviction. We've got to put pressure on the scientists to say to their students, "Take two years off, relatively speaking, and then come back into science and handle the preparation." As it is now, anybody who wants to be a scientist is so dominated by the brutal demands of science departments who simply want people to be better and better prepared when they begin to major, that their chances of getting a decent education have been largely nullified.

DEAN PHILLIPS: I want to make it clear from the outset that I find many things in Dr. Tussman's experimental program extremely attractive. The comments which I should like to make I hope will be no reflection on his very generous suggestion that administrators are those who see the problem most clearly, and they're most eager to develop educational reform. I must identify myself, however, at the beginning as a kind of gradualist in this process. Thus, I do not see the possibility of the kind of dramatic overhaul which Dr. Tussman espouses.

My questions, perhaps, will group themselves around three areas. One is the question which I think is on Father Fitzerer's mind: the question of transferability of this kind of program to various sorts of institutions. One of the strengths, I think, of the educational reform that is coming out of Berkeley is its multiplicity. We might expect this from the institution where the word "multiversity" was coined. Berkeley has gone to a pass-fail system at the same time that it's gone to a plus and minus system in grades, so that we can be much more accurate about B+'s and A−'s in courses. It has moved in the direction of student-oriented-instituted, issue-oriented courses developed by the students for their relevance to community problems. It has also gone to the kind of program that Dr. Tussman described, which brings, for me at least, memories of the University of Chicago in the days when I used to attend that institution. I think that it is important for each institution to try to sort out what kinds of images of itself it wishes to present to students, perhaps multiple images within one institution. That is, is the institution going to be seen as a complex factory, or as a blacksmith shop, or as a great books discussion group, or as a community club, or as a monastery, or what? It is possible that a Berkeley can be all of these things, equally valuable to various kinds of students. It may not be possible for other sorts of institutions to be all of those things.

I'd like to raise a question about this rather rigid lower- and upper-division split that Dr. Tussman has assumed to be true. We all fall into this jargon, and some people would point to the domination of the graduate schools in the very way in which we talk about this—lower than what? Higher than what? Why we should think of the first two years of the traditional college program as being lower rather than higher is something we might consider. Is it really true that we have to assume that the student begins to think only when he comes to us? If so, this has something to say about the nature of the educational experience which students have had before they come to us. Is general education solely the province of the lower-division program? I think a very good case can be made for the fact that one may explore some kinds of problems with a good deal of additional insight if he comes being expert in something. I would ask whether or not it might be possible to simply turn Dr. Tussman's upper and lower divisions around. I should like to see such a program as he describes as the "upper" division program. I see no reason why it would not be as valuable at this level as it might be as a lower-division program, at least for some kinds of students.

I'm not as pessimistic about the control of the departments as Dr. Tussman is. At least it's very difficult for me to distinguish between the departments and the faculty as a whole. I think we may be in danger of suggesting that somehow departments have a life separate from that which we impute to the faculty.

I should like to raise another question: How long can one keep non-courses taught by non-experts in non-subjects going with their original vitality? Dr. Tussman, what led to the decision to repeat the pattern of the original two-year program a second time? Our university (and I suspect some others) is littered with vestiges of general education programs from the 30's and 40's which have lost their life because those members of the faculty who developed them have lost their interest in this kind of activity. The vitality which originally characterized the course has now died. We're stuck with the shell; we're stuck with "Crisis during

the Peloponnesian War." How does one really keep from institutionalizing this kind of program within the institution?

One final remark, which leads back to the transferability notion. I think many kinds of colleges are stuck with vestiges of this sort also. I think we all ought to consider whether every college or university has the quality of the faculty who are capable and who have the kinds of commitments to their own fields as well as the free-wheeling capacity to excite the undergraduate about general matters within his own potential. It could be very dangerous to mimic the very exciting program of Dr. Tussman in many kinds of institutions.

DR. TUSSMAN: The principle of this program could work at the upper-division level. In many ways it's a shame that it isn't at the upper-division level because we're often told that the freshmen don't appreciate it. First let them have a year or two of the dreadful normal university, and then they will. But I think quite realistically the lower division in America is in a very special spot. It's not only the beginning of college, it's terminal. It's almost what the Europeans get in the *gymnasium* the final two years. It's got many functions to perform, and the vocational pressures are not present, concretely. That is, by the time a person gets to be a junior he does have to worry about preparation for a vocation so I think the lower two years is the strategic time for this sort of program.

Vitality is a real problem. I originally set up our experiment in order to ensure its dying unless enough energy was zealously directed to it. That's why I didn't want to argue for a separate faculty hired to teach this program, but committed myself to a procedure of recruiting visiting faculty from the regular faculty on the assumption that if we institutionalized it, it would run the danger of dying. This experiment has a death sentence written right into it. I confess I now am moving towards the view that I do need to have a nucleus of staff who will take the responsibility for recruiting visitors and will offer some cumulative experience. The reason for the repetition of the program was that we found that it was very good, and I'm operating now with an entirely new staff. I'm the only carry-over from the first group. I don't know how to handle that problem, because it takes a great deal of energy and devotion to recruit the number of people needed. But we are worried about the program's going dead and want to provide for its vanishing when that happens. But as to the question of vitality, we're stuck with that problem all the time. The regular program is full of regular courses which have gone dead a long time ago, only nobody's noticed it.

MR. DOUGLAS: I'm going to assume that I'm on the program to react to Dr. Tussman's speech as a representative of community colleges. The community college has been widely discussed lately and has been widely charged with failing to live up to its potentiality as a type of institution which can innovate. People have looked throughout the country and have been quite disturbed to find relatively little innovation of a curricular type in community colleges. They expected to find a great deal, since community colleges were very frequently new and growing.

I have been in a new community college now for the last few years, and I've been frequently asked by people in tones dripping with suspicion: "How on earth could you pretend to start a new college in such a short time with these limited resources?" I've always answered that it's quite easy to start a transfer program because there are so many individuals, institutions, and agencies in the accrediting societies prescribing what should be done and what they will do if it isn't accomplished. These prescriptions cripple innovation.

In addition we have a variety of four-year schools which want community colleges to conform fairly well to their patterns. We also inherit from the four-year schools their products, the instructors, who come in with fixed minds and a set of borrowed attitudes about what ought to happen during the first two years. Time and money also impose some restrictions upon the two-year colleges. It's very easy to fall into a conventional pattern.

On top of that we have another element in the community college—occupational programs. It's been my experience that if we thought the lower-division's traditional program was rigid, it was nothing compared to what we've found in the vocational hierarchy, where since 1918 the most rigid mass of regulations, traditions, and ideas has been contrived.

Lastly we have heard much about the systems approach to education, and this has a good deal of promise. But it also is potentially dangerous because it too has rigidity built into it. Once an idea is systematized and programmed into a machine it sometimes is quite difficult to change it.

There are some other things in the community college, however, which are much more promising, and give impetus toward innovation. For one thing we are new, this gives us an opportunity to innovate, because we don't have so many established patterns to change. Occasionally we have individuals who are really rebelling against the traditional system of higher education and have come to the community college for the very purpose of doing something different from what they've been forced to do before.

The most promising phase is the technical program. I've found our faculty people, who have been nurtured in the traditions of higher education, coming into these technical programs and breaking with tradition. They've found new ways of doing things; they've begun to use the potentiality of adopting the same mind set in dealing with the traditional academic programs.

Now I've a question to ask of Dr. Tussman. Transfer has been mentioned here before, and it certainly is with us. I think that probably 40 or 50 per cent of the students in the large universities now are transfer students, particularly in California with 90 community colleges existing there. Will not the proliferation of such programs as you have mentioned occasion even more problems for transfer students, and for the community colleges? That is, I assume that Dr. Tussman is not advocating that each institution in California or in the nation adopt exactly that same type of experimentation he has outlined; rather, he's advocating that we experiment and develop a different pattern in throwing out the old. Or will this proliferation lead ultimately to the kind of freedom that the community colleges desire in structuring their unique approach to the curriculum of the lower division? That is, if we finally go on in higher education at the four-year level and develop so many different kinds of experimental programs—and let's hypothesize that they'll be successful and that they'll take over to the point where community colleges find it impossible to find any pattern to conform to,

even if we're told to do so—can we then be given the freedom that we should have in developing our own unique programs?

DR. TUSSMAN: The transferability problem is a great one, and one of the reasons I'm doing this at the University of California, for example, is not unrelated to that. A friend of mine has inaugurated this program at a state college. There are a number of junior colleges interested. The junior colleges couldn't move on this until it was clear that it was working at Berkeley. So now, for example, we take transfers from regular programs through the year. The argument is if Berkeley will take in the upper-division people who graduated from this program, coming out of the lower division at Berkeley, why shouldn't they take somebody coming out of an equivalent program in a junior college or in a state college? The answer is "They should." If the major institutions will take the lead in experimenting in their lower divisions, it opens up the situation for junior colleges. That's why I think it's necessary to break through with experimentation in the major institutions. I would guess that if the University of Washington were to do this, it would mean that it would be accepting equivalent programs from the junior colleges.

The other part of it, I think, is increasingly to regard the major and the upper division and graduate school as involved in a hands-off policy at the lower-division level. Take account of the fact that we now live longer, that nobody's rushing to get people on the labor market. In fact, let's cut off this whole business of prerequisites for the major and take anybody into the junior year who's done satisfactory work according to a conception of education that satisfies any reasonable faculty. This is why, in part, that I think in terms of the lower division-upper division separation. I'd be much more willing to give the economics department, let's say, almost all of the students' upper-division time if that's what they think they need, in exchange for leaving the lower-division students alone. I think if we do separate the lower division spiritually in this sense, it will potentially open the door for the independence of the community college and the lower division generally.

With respect to the flexibility of this program, I often encounter people who say, "Look, it's a good idea but why not study the Industrial Revolution?" My answer is "That's a great idea. Do it!" I'm far from arguing that we have the only coherent theme that can be developed. We have one of them. I would defend it as a good one, but I would never try to defend it as the only one.

One other thing—I'm troubled about technical education in the lower division or in the community colleges. My own inclination is to tell industry to do its own technical training, and refuse to corrupt the community colleges by accepting the task. Industry has plenty of money. Let them go out, hire people, put them through school, and teach them the technical knowledge. We need those two years for a crack at the minds and spirits of everybody, whether they're going on to college or not. I think we've got to fight off the demand that we prepare technicians at public expense for corporations.

DEAN GILES: It's always a pleasure when one has a program or attempts to work with something in which the outcomes exceed or at least live up to the expectations. The last hour and a half has been that, as far as I'm concerned, and I'm sure as far as you're concerned. Certainly, we wish to thank Dr. Tussman for laying out something that I think stretched our minds, and for his willingness to reflect on individual questions.

PROGRAM OF FOURTH ANNUAL CONFERENCE OF AHE-WEA

SPEAKERS

"1980 or 1984?—The Undergraduate Curriculum"—Dr. Lewis B. Mayhew
"Undergraduate Education—A President's View"—Dr. Glenn Leggett
"Undergraduate Experiment at Berkeley"—Dr. Joseph Tussman

REACTORS TO DR. TUSSMAN'S ADDRESS

Panel Moderator: Dr. Frederic Giles, dean, College of Education, University of Washington
Panel Members: The Very Rev. John A. Fitterer, S.J., president, Seattle University; Dr. William L. Phillips, associate dean, College of Arts and Sciences, University of Washington; George Douglas, executive vice-president, Shoreline Community College

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"Vocational-Technical Programs in Undergraduate Education"
Chairman: Richard Moe, administrative assistant, Coordinating Council for Occupational Education
Presenters: Dr. Raymond P. Whitfield, dean of graduate studies, Eastern Washington State College; Cecil A. Bradley, director, vocational and technical education, Seattle Community College
Recorder: Jack Hyde, geology department, Tacoma Community College

"Articulation-Transfer in Inter-Institutional Programs"
Chairman: Dr. Ralph K. O'Brien, associate dean, School of Education, Seattle University
Presenters: Dr. H. C. Karason, director of general studies, Western Washington State College; Raymond Needham, dean of instruction, Green River Community College; Calvin Matthews, WWSC; Ulysses Rowell, Jr., director, New Careers Project
Recorder: Charles Yackulic, School of Education, Seattle University

"Cluster College Concept"
Chairman: Dr. T. H. Langevin, academic vice-president, Pacific Lutheran University
Presenter: Dr. Charles W. Harwood, dean, Fairhaven College (a division of WWSC)
Recorder: Dr. Robert Bock, dean, University of Puget Sound

"New Media in Undergraduate Education"
Chairman: George Douglas, executive vice-president, Shoreline Community College
Presenter: Dr. Gerald M. Torkelson, professor of education, University of Washington
Recorder: Dr. David Carnahan, director of instructional services, Seattle Community College

"Faculty Responsibility in Student Advisement"
Chairman: Mrs. Ruth Chiles Watson, director, First Humanities Program, Seattle University
Presenters: Dr. Daryl Hagie, dean of students, Eastern Washington State College; Dr. Howard B. Larsen, assistant professor of education, Washington State University
Recorder: Harold Jones, biology department, Yakima Valley College

"A New Program in Undergraduate Education"
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Presenter: Dr. Byron F. Doenges, academic dean, Willamette University
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